

# Taiwanese Model of Early Intervention Needs Assessment System

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## Abstract

The purpose of this study was intended to investigate the current system of early intervention needs assessment in Taiwan in order to understand the problems encountered and provide the coping strategies for improving the system. Documentary analysis, phone interview and participant observation were employed in the study to collect the research data needed. The sample of phone interview consisted of 18 professionals from 14 municipalities and counties (cities) selected by the purposive-stratified basis. The self-developed semi-structured Early Intervention Needs Assessment Questionnaire was used to collect the phone interview data. The modified analysis and the constant comparative method were adopted to treat the data.

The results of the study revealed that the Early Intervention Service Implementation Program for Children with Developmental Delays is the policy foundation for the finding and assessment of young children with special needs in Taiwan. Both the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and the Center of Team Evaluation for Children's Development in all municipalities and counties (cities) seem to be the core frameworks for early intervention needs assessment. The current early intervention needs assessment system generally seems to have such functional problems as shortage of funding and professional manpower, poor coordination among social welfare, health and education agencies and organizations, low rate of notification for screening (especially for the ages 0-3), weak parental willingness to receive services, lack of assessment and intervention resources, as well as the reliability and validity problems in assessment instruments. Some coping strategies in accordance with these problems were also recommended in the study.

## Introduction

Since 1980, various laws related to the welfare, education, and health services of people with disabilities, such as the Physically and Mentally Disabled Citizens Protection Act, the Special Education Act, as well as the Children and Adolescents welfare Act, have been enacted in Taiwan. These acts were also revised for several times in order to provide viable services for persons with disabilities. The most significant changes seem to extend upward and downward the ages (after age 15 and before 6) qualified for receiving education and services. The ages from birth to 6 are generally recognized the fastest and most plastic period for child development. For those infants and young children who are at risk or disabled, early intervention is

particularly critical for their development.

Thanks to the importance of early intervention, the government has gradually put forth some substantiated measures to command the early intervention needs of young children with developmental delays or disabilities since 1995. The purpose of this study is intended to present the current system and problems of early intervention needs assessment in Taiwan. Some coping strategies for improving the system will also be suggested in the study.

## **Research Methods**

Based on the aforementioned purpose, documentary analysis, phone interview and participant observation were employed in the study to collect the research data needed. Documentary analysis was used to understand the current status of early intervention needs assessment system, problems and coping strategies in Taiwan. In addition to literature review, other data were obtained from the Children's Bureau of Ministry of the Interior, Department of Health, some municipality and county (city) governments, and several Early Intervention Notification, Referral and Case Management Centers for Children with Developmental Delays as well as Centers of Team Evaluation for Children's Development in some municipalities and counties (cities). Documentary data were collected through phone call or official correspondence contacts with related agencies or organizations and through Internet search.

Phone interview was conducted to understand problems and coping strategies of the early intervention needs assessment system. The sample of phone interview selected by the purposive-stratified basis, consisted of 15 supervisors and social workers from the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays in 12 municipalities and counties (cities) as well as 3 directors from the Center of Team Evaluation for Children's Development in 3 counties (cities). The researcher independently completed all phone interviews.

The self-developed "Early Intervention Needs Assessment Questionnaire" was the instrument for phone interviews. This questionnaire was designed to elicit responses from professionals working in the fields of early intervention notification, referral, assessment, and case management in order to understand the difficulties and coping strategies in the early intervention needs assessment system. It pertains to a semi-structured format and the interviewees are free to respond. Three issues in relation to "notification and referral," "children's development assessment" and "case management" were included in the questionnaire. The interviewees were asked to express their opinions in terms of difficulties encountered and coping strategies recommended. The modified analysis and the constant comparative method were

adopted to treat the phone interview data.

The researcher has been the member in the “Early Intervention Promotion Unit” of a county government for years. From the participation and observation in this unit, it is helpful to understand the actual practice of early intervention needs assessment system and integrate the abovementioned research data acquired through documentary analysis and phone interview.

## **Present Condition of Early Intervention Needs Assessment System**

From the documents acquired in the study, the Taiwanese model of early intervention needs assessment system seems clearly present. The enacting and revision of laws related to education, health and social welfare for people with disabilities certainly have significant progress in Taiwan since 1980s. Owing to the rapid information exchange of the global village, the “time difference” between Taiwan and other developed countries in many considerations and designs in education, health and social welfare services for people with disabilities is virtually limited (Ho, 2007). Some fragmentary endeavors for early intervention of young children with special needs before age 6 have actually been made since 1960s in Taiwan. In 1990s, a great many private social welfare institutions had eagerly established early intervention or child development centers, one after another.

The finding and assessment of young children with special needs are the foundation stones of early intervention practice. At the present time, the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays founded by each municipality and county (city) and the Center of Team Evaluation for Children’s Development established in all municipalities and counties (cities) by Department of Health, Executive Yuan, seem to be the core frameworks for early intervention needs assessment. They have been generally implemented and gradually systematized. Therefore, the description of early intervention needs assessment system in Taiwan will be focused on the policy foundation, operation procedure, and service contents of the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and the Center of Team Evaluation for Children’s Development as follows.

### **Policy Foundation**

Since 1997, the central government has been using the Early Intervention Service Implementation Program for Children with Developmental Delays as an important policy measure to organize the resources of social welfare, health, education, police administration, and so on to promote the early finding, intervention and related services for children with developmental delays and their families. This program

should be considered a fundamental policy statement for the finding, assessment and intervention services of young children with special needs. It is also the policy foundation for the finding and assessment of infants and young children who are at risk or disabled in Taiwan (Ministry of the Interior, 2006). The highlights of this program related to needs assessment of young children with special needs could be listed as follows:

1. General planning:

- (1) Supervise or coordinate social welfare, health and education agencies in finding, screening, notification, referral and assessment for children with developmental delays.
- (2) Develop children's assessment scales and determine the establishment standards for the Center of Team Evaluation for Children's Development and the criterion of diagnostic grading.
- (3) Promote the research and development of early intervention services.

2. Finding and Screening:

- (1) Provide children's development scales for parents, related agencies and organizations to use.
- (2) Promote the early screening for age 0-6 in order to find the abnormal cases as soon as possible.
- (3) Increase the finding rate of children with developmental delays through the efforts of preventive care for children, inoculation or community health education activities.
- (4) Reinforce the finding and referral of children with developmental delays from disadvantaged families.

3. Notification and Referral:

- (1) Assist the public and private sectors in the fields of social welfare, health and education to implement the notifying measures of children with developmental delays.
- (2) Establish the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays.
- (3) Develop the transition and follow-up mechanisms among notification, referral and case management centers, assessment centers and intervention institutions.
- (4) Develop the case management computer database to command the case condition and establish its follow-up mechanism.
- (5) Develop the cross-counties (cities) resource network, case referral and follow-up systems.

4. Team Evaluation:

- (1) Establish at least one team evaluation center in every county (city) or establish the team evaluation mechanism. And assist public and private hospitals to plan and organize team evaluation services in order to increase the accessibility of assessment.
  - (2) Establish the integral assessment procedure and cooperation mechanism among professionals of evaluation teams.
  - (3) Assist evaluation teams to finish the comprehensive assessment reports
  - (4) Provide these reports to parents and the local notification, referral and case management center for the upcoming services within 4-8 weeks from the initiation of the case.
5. Publicizing and Training:
- (1) Designate a screening month for child development to advocate the concepts of child development.
  - (2) Plan the training courses for early intervention professionals.

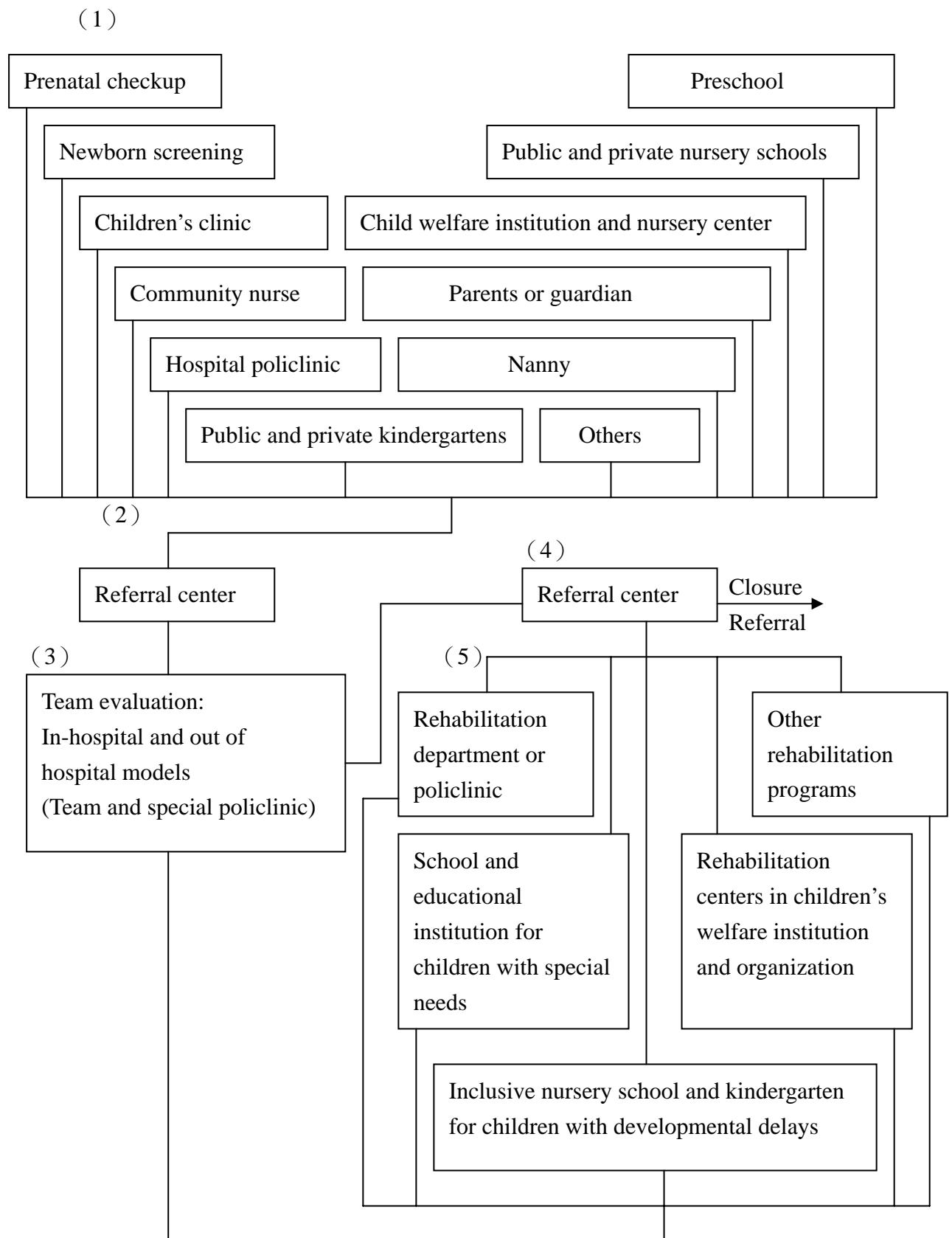
The Early Intervention Service Implementation Program for Children with Developmental Delays is based on the Children and Adolescents welfare Act, Special Education Act, as well as Physically and Mentally Disabled Citizens Protection Act. From the abovementioned items, it is evident that early intervention needs assessment is an integral part of the program. Thus, this program has become the important policy foundation for early intervention needs assessment in Taiwan.

### **Operation Procedure**

For the administrative operation of early intervention needs assessment for young children with special needs, the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and Center of Team Evaluation for Children's Development have been established in every municipality and county (city). In addition, the Early Intervention Promotion Unit or Early Intervention Promotion Committee is also organized in every local government for the purpose of policy formation, coordination and guidance of early intervention services. In essence, the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and Center of Team Evaluation for Children's Development are actually two departments related to finding, assessment, referral, and case management of young children with special needs.

Figure 1 presents the general flowchart of early intervention notification, referral, assessment, and placement for children with developmental delays in Taiwan. From this flowchart, we could understand the working relationship between the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and Center of Team Evaluation for Children's Development.

Young children with special needs might be notified from prenatal checkup, newborn screening, children's clinic, community nurse, hospital policlinic, public and private kindergartens, preschool, public and private nursery schools, child welfare institution and nursery center, parents or guardian, nanny, etc. When these notifications reach the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays, all cases are arranged to receive assessment and evaluation from the Center of Team Evaluation for Children's Development. After the individualized intervention plan and relevant recommendations are developed by the center of team evaluation, the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays will take over the case for arranging placement or referral of intervention services. If no further placement is needed, the case will be closed. The intervention- relevant rehabilitation placement institutions may include rehabilitation department or policlinic, school and educational institution for children with special needs, inclusive nursery school and kindergarten for children with developmental delays, rehabilitation centers in children's welfare institution and organization, and so on.



Note: (1), (2), (3), (4), and (5) are the sequence of early intervention services.

**Figure 1** Flowchart of Notification, Referral, Assessment and Placement for Children with Developmental Delays (Ministry of the Interior, 2005)

## Service Contents

The Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and Center of Team Evaluation for Children's Development are the most important system designs for early intervention needs assessment in Taiwan. The service nature and contents of these two centers are described respectively as follows.

### *The Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays*

Every municipality and county (city) all has the Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays established. According to Children's Bureau Ministry of the Interior (2007), most of the centers are commissioned to the private sector of social welfare or medical institutions by the local governments (17), part of the local governments (6) are responsible for notification and referring services but give the private sector a commission to take charge of case management services. Two offshore island county governments are fully in charge of all notification, referral and case management services. From the phone interviews of the study, it seems to be a developing trend that all notification, referral and case management are commissioned to the private sector by the latter two groups of local governments.

No matter how the notification, referral and case management centers are delegated, the notification, referral and case management of young children with special needs should be the functions that the centers are expected to fulfill. In general, the service contents of Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays in each municipality and county (city) may include the following categories (Social Affairs Bureau Taipei County, 2005; Chiayi Christian Hospital, 2006; Children Welfare Service Center, BSA, KCG, 2007; Catholic Hua Kuang Mental Development Center, 2007; St. Raphael Opportunity Center, 2007a and 2007b; Catholic Chu Ai Mercy Hospice for Disabled, 2007a and 2007b):

1. Planning and implementation of early intervention services for children with developmental delays.
2. Establishing the notification network.
3. Implementing screening activities of children with developmental delays.
4. Providing services to the case notified.
5. Consultation and referral services.
6. Case follow-up and guidance.
7. Publicizing the concepts of "developmental delays" and "early intervention."

8. Collection, analysis, and integration of early intervention resources.
9. Intervention aid application services for children with developmental delays.
10. Case management services.
11. Professional training.

*The Center of Team Evaluation for Children's Development*

From 1997, Department of Health started to support the hospitals to establish Center of Team Evaluation for Children's Development. Until July 2007, 29 centers had been established in the whole country (Lu, 2007). According to Department of Health, Executive Yuan (2001), the basis, principles, requirements, and professionals needed of the center establishment are as follows:

1. Basis: Promote early intervention for children with developmental delays in accordance with the Physically and Mentally Disabled Citizens Protection Act as well as the Children and Adolescents welfare Act.
2. Principles: In considering the balanced distribution of resources and accessibility for the public, at least one center shall be established in every municipality and county (city) in order to set up the assessment and intervention service network.
3. Requirements:
  - (1) Level of hospital: In principle, the center should be above the level of regional hospital.
  - (2) Professionals:
    - A. Pediatrics neurology, rehabilitation as well as child and adolescent psychiatry specialists (at least two departments are full-time and other one could be part-time).
    - B. Clinical psychologists (at least one is full-time).
    - C. Physical therapists (at least one is full-time).
    - D. Occupational therapists (at least one is full-time).
    - E. Speech therapists (at least one is full-time).
    - F. Social workers (at least one is full-time).

In order to enhance the quality of service, Department of Health also presented the Evaluation Guidelines for the Center of Team Evaluation for Children's Development (Department of Health, Executive Yuan, 2007). The evaluation should be conducted at least once a year or irregularly scheduled. Thus, it is evident that the team evaluation for children's development is highly valued in Taiwan.

## **Problems and Coping Strategies**

Even though a basic service system for early intervention needs assessment has

been established in Taiwan, some functional problems in the areas of notification and referral, assessment for children's development, as well as case management seem to be found in this study. These problems could be categorized and listed as follows:

**1. Notification and Referral Problems:**

- (1) Low willingness to accept the notification from parents.
- (2) Lack of concepts about notification.
- (3) Poorly funded and understaffed.
- (4) Poor coordination among social welfare, health, and education agencies.
- (5) Low notification rate due to noncompulsory notification.
- (6) Poor notification from nursery schools and kindergartens.
- (7) Inconsistent screening outcomes resulting from the instrument problems.
- (8) Lack of mandatory power conferred on the commissioned sector.
- (9) Poor notification rate from ages 0-3.

**2. Assessment for Children's Development Problems:**

- (1) Lack of assessment resources.
- (2) Poorly funded and understaffed.
- (3) Low screening rate that is inconsistent with the prevalence.
- (4) Assessment instrument problems.
- (5) Quality of assessment problems.
- (6) Poor coordination among agencies and organizations.
- (7) Poor willingness to accept assessment from parents.
- (8) Professional dominance resulting in poor communication.
- (9) Significant inconsistency on the assessment results among psychologists.

**3. Case Management Problems:**

- (1) Understaffed and poorly funded.
- (2) Low willingness to seek help from parents.
- (3) Lack of intervention resources.
- (4) Influences of family problems.
- (5) Computer operating system problems of Children's Bureau Ministry of the Interior.

For the abovementioned problems in the areas of notification and referral, assessment for children's development as well as case management, the following coping strategies are recommended.

**1. Notification and Referral Strategies:**

- (1) Enhance the public awareness about notification and referral for children with developmental delays through home visit, workshop, and familiarizing parents and nonprofessionals with the children's development scale (Hsu,

Chang, & Chou, 2006).

- (2) Provide adequate funding and manpower.
- (3) Reinforce communication and connection among social welfare, health, and education agencies and organizations.
- (4) Have the physical checkup mechanism for young children prescribed by the National Health Insurance put into effect in order to early detect children with developmental delays before age 3.
- (5) Associate the financial aid with notification to raise the willingness to accept further assessment from parents.

## 2. Assessment for Children's Development Strategies:

- (1) Increase assessment resources such as more team evaluation centers and provide appropriate funding in order to establish an efficient assessment mechanism.
- (2) Enhance the quality of assessment services through the efforts such as professional preparation, in-service training and reasonable allotment, assessment instruments improvement, case conferencing, and communication with parents.
- (3) Provide needed professionals such as clinical psychologists, speech therapists, and physicians in the fields of pediatrics orthopedics, genetics, etc.
- (4) Pay close attention to the assessment of 0-3-year-olds through the efforts such as follow up the development of premature babies and screening at inoculation (Liang, 2006).
- (5) Improve coordination and communication among agencies, organizations and parents to promote the assessment services for children with developmental delays.

## 3. Case Management Strategies:

- (1) Provide reasonable funding and manpower to upgrade the case management services.
- (2) Pay attention to the preparation and in-service training of case managers.
- (3) Provide families necessary assistance such as respite service, parental education, etc. in order to increase parental willingness to accept early intervention.
- (4) Develop and integrate resources through such strategies as increasing intervention programs, acquiring help from the private sector, and itinerant services to provide assistance for the families in need.
- (5) Improving the computer operating system of Children's Bureau Ministry of the Interior to upgrade the efficiency of case management.

## Conclusions

From the adoption of documentary analysis, phone interview and participant observation in the study, it is found that the Early Intervention Service Implementation Program for Children with Developmental Delays has become the policy foundation of finding and assessment for young children with special needs in Taiwan. The Early Intervention Notification, Referral and Case Management Center for Children with Developmental Delays and the Center of Team Evaluation for Children's Development both established in every municipality and county (city) seem to be the core frameworks of early intervention needs assessment in this island country.

Although Taiwan has gradually constructed a fundamental service system of early intervention needs assessment for young children with special needs, some functional problems of the system in the areas of notification and referral, assessment for children's development as well as case management seem present. Of all these problems, shortage of funding and professional manpower, poor coordination among social welfare, health and education agencies and organizations, low rate of notification for screening (especially for the ages 0-3), weak parental willingness to receive services, lack of assessment and intervention resources, as well as the reliability and validity problems in assessment instruments are worth great concerns.

Some important coping strategies for the problems encountered in the early intervention needs assessment system recommended in the study include adequate funding, professional training and reasonable allotment, advocacy and education for early intervention, enhancing coordination among social welfare, health and education agencies and organizations, putting children's physical checkup into effect, promoting the assessment for 0-3-year-olds, development and integration of assessment and intervention resources, and upgrading the quality of assessment services.

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